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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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19 2005 1009 09 14 2009 INVENTOR

1009 1009

EXAMINER

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4002 2419

ART UNIT	PAPER NUMBER
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DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

CT FR

Office Action Summary

Application No. 09/395,409	Applicant(s) Cantor et al.
Examiner Scott Houtteman	Art Unit 1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on Apr 6, 2001
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-55, 58-60, 63-77, and 86-127 is/are pending in the application
- 4a) Of the above, claim(s) 88-127 is/are withdrawn from consideration
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-55, 58-60, 63-77, 86, and 87 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claims _____ are subject to restriction and/or election requirements

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) All b) Some* c) None of:
- Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) Notice of References Cited (PTO-892)
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8 4,601/1/24/01
- 18) Interview Summary (PTO-413) Paper No(s) _____
- 19) Notice of Informal Patent Application (PTO-152)
- 20) Other _____

1. Applicant's response, filed 4/6/01, has been carefully considered with the following effect:
The rejections of paragraph 2, Office action mailed 10/04/01, has been maintained.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Newly submitted claims 88-127 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claims 88-127 are drawn to newly claimed methods of detection comprising gel electrophoresis, capillary electrophoresis, chromatography and nuclear magnetic resonance, mass spectrometry and to probe arrays comprising "4^R probes with a variable region of length R and single-stranded portions and double stranded portions." These detection methods are classified in class 204, subclass 450; class 250, sub. 281; class 314, sub. 546 and class 210, sub 656.

4. The newly presented inventions and those originally presented are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed (the detection means) for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In this case, the combination as claimed does not require the particulars of the subcombination as claimed. This is shown ^{by} ~~because~~ ^{which} claim 88 lists four different methods of detection subcombinations. The subcombinations have separate utility such as

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methods of identifying unknown compounds methods of determining precise mass and isotope concentrations.

A burden is shown by the separate classifications. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 88-127 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

5. Claims 1-55, 58-60, 63-77, 86 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khrapko et al., J. DNA Sequencing and Mapping 1:375-388, 1991 (Khrapko) in view of Drmanac et al., DNA and Cell Biology 9(7):527-534, 1990 (Drmanac).
6. Applicant argues that the prior art does not teach a molecular weight determination step. This argument is not persuasive. The prior art teach methods of sequencing of nucleic acid. All nucleic acid sequencing methods involve first a fragmentation step and then a method of determining the molecular weight of the fragment. Thus a molecular weight step is implicit in any prior art method of nucleic acid sequencing.
7. Applicant's remaining arguments refer to limitations that are only in the newly presented claims.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire **THREE MONTHS** from the date of this action. In the event a first response is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than **SIX MONTHS** from the date of this final action.

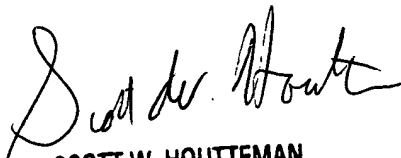
9. Papers relating to this application may be submitted to Technology Center 1600 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 1600 Fax numbers are (703) 305-3014 and 308-4242.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Houtteman whose telephone number is (703) 308-3885. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 8:30 AM - 3:30 PM. The examiner can also be reached on alternate Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached at (703) 308-1152.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0196.

Scott Houtteman
June 18, 2001


SCOTT W. HOUTTEMAN
PRIMARY EXAMINER